

386 | DEBUG Release Notes for Version 4.1

This file documents differences between the 4.1 version of 386 | DEBUG and the third edition of the "386 | DEBUG Reference Manual," published in January 1991.

New Switches

-H[OT]KEY

The -HOTKEY switch enables a hotkey breakpoint with the CTRL-ALT keystroke combination. When CTRL-ALT is typed, 386 | DEBUG sets a breakpoint on the next protected mode instruction to be executed by your program. Use it to break out of infinite loops with no DOS calls inside the loop. If DOS calls are being made within an infinite loop, you can break out to the debugger by typing CTRL-C.

The CTRL-ALT hotkey combination cannot be used to obtain control (has no effect) when debugging a real mode program, or when the real mode portion of a mixed real and protected mode program is executing.

-REALE[XC]

Enables 386 | DEBUG trapping exceptions 12 and 13 (General Protection Fault and Stack Fault) in real mode. This can be useful

when debugging real mode programs that use 32-bit instructions, or when debugging mixed real and protected mode programs.

-[DBG]REX filename

Explicitly specify the path and name of the DBGLIB.REX file to be loaded. By default, the 386|DEBUG looks first in the directory where 386|DOS-Extender is located, then in the current directory, then on the executable PATH, and last in the directory where 386|DEBUG is located.

New Commands

BPC breakpoint new_passcount

The BPC command resets the pass count for the specified breakpoint number to the new pass count value. For example:

```
-BP fread 1a      -BL    0 FREAD (Prot) passcount=1A mechanism=INT 3  
-BPC 0 9  -BL    0 FREAD (Prot) passcount=9 mechanism=INT 3
```

WPC watchpoint new_passcount

The WPC command resets the pass count for the specified watchpoint number to the new pass count value. For example:

```
-WP errflag 4 w 7  -WL    0 ERRFLAG (Prot) passcount=7 datalen=4  
write only  
-WPC 0 C  -WL    0 ERRFLAG (Prot) passcount=C datalen=4 write only
```

XO offset

The XO command adds the specified offset to all symbols in the global symbol table. Use it in conjunction with the -SYMFILe switch, when debugging a relocatable .REX program overlay or add-in driver that is loaded by your main protected mode program into its own program segment (segments 000Ch and 0014h). The XO command is similar to the XR command, but is used with .REX files rather than

.EXP files. See section 2.5 in the manual for more information on loading alternate symbol tables.

Modified Commands

BP address [passcount]

The BP command now takes an optional pass count. The breakpoint occurs after the specified address has been executed passcount times. The passcount is reset to zero after the breakpoint occurs.

WP address datalen [[r | w] passcount]

The WP command now takes an optional pass count. The watchpoint occurs after the specified address has been read or written passcount times. The passcount is reset to zero after the watchpoint occurs.